



STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

Northwest Regional Office • 3190 160th Avenue SE • Bellevue, Washington 98008-5452 • (425) 649-7000

April 8, 2002

CERTIFIED MAIL

7000 1670 0011 6033 6724

Mr. Tom Martin  
ASARCO, Inc.  
P.O. Box 1677  
Tacoma, WA 98401

Dear Mr. Martin:

RE: Everett Smelter Site – Ecology Enforcement Order No. 02TCPNR-3878

Enclosed please find Ecology Enforcement Order No. 02TCPNR-3878. The effective date of this Order is April 8, 2002. It requires Asarco to implement the *Integrated Final Cleanup Action Plan and Final Environmental Impact Statement for the Upland Area* at the Everett Smelter Site. It also requires Asarco to perform a Feasibility Study for the Lowland Area of the site.

The Order requires Asarco to return Exhibit B, "Notice of Intent to Comply with Ecology Enforcement Order No. 02TCPNR-3878" (this Order) within 7 days of the effective date of the Order, or by April 15, 2002. The Order specifies other submittals and their due dates (see Section IV.4).

Equipment is to be mobilized to the site no later than April 30, 2003; that is, in about one year. Material with arsenic concentrations greater than 3,000 mg/kg is to be removed from the fenced area by October 1, 2004. Cleanup actions in the Upland Area are to be completed by 2009.

Failure to meet submittal dates established in the Order, failure to mobilize equipment by the required date, or failure to submit any other deliverable or to complete any other specified work by the required date is a violation of this Enforcement Order. In such instance, Ecology may proceed with remediation work and/or bring appropriate legal actions, including actions for penalties, in accordance with Ch. 70.105D RCW.

Please contact me to discuss your compliance with this Order. You may reach me at 425-649-7200 or [dsou461@ecy.wa.gov](mailto:dsou461@ecy.wa.gov).

Sincerely,

*David L. South*

David L. South

Enclosure

DS:jc

cc: Michael Thorp  
Andy Fitz



**STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY**

In the Matter of Remedial                    )  
Action by:                                        )  
ASARCO Incorporated                         )  
  )       No. 02TCPNR-3878

To: ASARCO Incorporated  
P.O. Box 1677  
Tacoma, Washington 98401

I.

Jurisdiction

This Order is issued pursuant to the authority of RCW 70.105D.050(1).

II.

Statement of Facts

1. The area that is the subject of this Order is known as the Everett Smelter site. The Everett Smelter site is in Everett, Washington. It is shown in Exhibit A, Figure A-1. The site is divided into the Upland Area and the Lowland Area. The Upland Area is primarily in residential, commercial, and recreational use and is located in an area bounded by a bluff along the Snohomish River. The Lowland Area is in industrial and port use and is a low area between the bluff and the Snohomish River.
2. In 1894, the Puget Sound Reduction Company began operating the Everett smelter. Ores were delivered to the smelter by rail and refined for lead, copper, gold, and silver. The smelter produced pig lead, most of which was shipped to Japan and China. The lead smelter operated until May 1907. Lead ore was refined on the Site until 1908.

3. Some of the primary structures at the smelter included 8 railroad spurs, a sulfide mill, furnace and roaster buildings, flues and dust chambers, and two 100+ foot high smoke stacks (See Figure A-2). At the turn of the century, the smelter was one of the largest industrial facilities in Everett, employing up to 125 people.

4. Some of the ores delivered to the smelter contained over 25 percent total arsenic. To recover arsenic from the ore, an arsenic processing plant was constructed on the southern end of the Site (See Figure A-2). The plant consisted of several structures, including additional smoke stacks, flues, ovens and mills, and a large arsenic processing building. The arsenic processing plant operated from approximately 1898 until 1912.

5. In 1903, ASARCO Incorporated (Asarco) bought the smelter; they operated it until it was dismantled in 1914 and 1915. It is unclear how or when the smelter structures were razed. However, it is reported that when some of the arsenic processing equipment was dismantled in Everett it was salvaged and used at the Asarco smelter in Ruston, Washington.

6. Asarco sold the smelter property through a series of transactions that occurred between 1914 and 1936. The transactions are listed in the following table. The number of acres listed for each transaction is an approximation.

Year	No. of Acres	Property Sold To
1914	1.32	Weyerhaeuser
1914	0.92	Snohomish County
1916	0.11	Mr. & Mrs. Cook
1924	4.19	State of Washington
1924	1.66	Weyerhaeuser
1924	10.28	Weyerhaeuser
1928	17.89	Mr. Priestersbach

<b>Year</b>	<b>No. of Acres</b>	<b>Property Sold To</b>
1932	6.01	Model Transfer & Storage
1936	6.01	City of Everett

The acreage bought by the State of Washington is now the interchange between East Marine View Drive and State Route 529. The 17.89 acres bought by Mr. Priestersbach were developed into residential neighborhoods. About 25 houses were built on property that is now within the Fenced Area. The area east of East Marine View Drive is used for industrial and railroad purposes. Mr. Boyd Benson owns approximately 5 acres of the industrial area east of East Marine View Drive. Since the 1950s, the Benson property has been used for a rock wool insulation plant, which processed smelter slag left on the Site into insulation; a scrap metal yard; and, most recently, a bark and topsoil facility.

7. In 1990, an outcrop of slag was discovered on the hillside below East Marine View Drive. The slag was discovered during an environmental investigation being conducted by Hart-Crowser for Weyerhaeuser. As part of the investigation, slag, soil, and ground water samples were collected on Weyerhaeuser property and analyzed for the presence of heavy metals. After receiving the data, Weyerhaeuser notified the Washington State Department of Ecology (Ecology) in a letter to Mr. Greg Bean, dated October 30, 1990, that a release of a hazardous substance had occurred at the site.

8. Ecology conducted an initial investigation of the Site in December 1990. The investigation included a Site visit, historic research of the area, and a review of the data previously submitted by Weyerhaeuser.

9. Ecology conducted a Site Hazard Assessment (SHA) of the Site in February 1991. The SHA consisted of a magnetic survey, to attempt to locate the extent of buried slag, and collection of 20 surface soil samples that were analyzed for metals. Laboratory analysis demonstrated releases of arsenic, cadmium, and lead to the soils found in the residential area on the site.

10. Ecology conducted a "Pre-Remedial Investigation" (Pre-RI) in May 1991. The Pre-RI consisted of the preparation of a site map and collection of 285 additional soil samples. The purpose of the investigation was to further characterize the nature and extent of elevated concentrations of residual metals that were identified in the SHA. Results of the Pre-RI confirmed releases of arsenic, cadmium, and lead in surface soils throughout the study area.

11. In April 1992 Ecology issued Enforcement Order No. DE92TC-N147 to Asarco. This Order required Asarco to perform a Remedial Investigation/Feasibility Study and certain interim actions to limit exposure of residents to arsenic and other metals at the site.

12. In March 1994 Ecology issued the first amendment to Enforcement Order No. DE92TC-N147. The first amendment required Asarco to perform additional interim actions and prepare an interim deliverable remedial investigation report. The amendment also required Asarco to undertake additional sampling for the remedial investigation and extended the schedule.

13. The Washington State Department of Health (WDOH) and the Agency for Toxic Substances and Disease Registry (ATSDR) collected hair and urine samples from site

residents in 1994. Analysis of these samples indicated that some people on the site were exposed to greater than normal amounts of arsenic.

14. Subsequent to the hair and urine sampling, ATSDR sampled soil and house dust at residences located in areas suspected of containing smelter demolition debris to further define routes of exposure. Analysis of these samples indicated that soil and house dust at residences within the former smelter property contained elevated concentrations of lead and arsenic. ATSDR forwarded a Health Consultation to Ecology dated August 31, 1995 regarding the soil and house dust sampling at two homes on the site. In the Health Consultation, ATSDR concluded that residents of the two homes were being exposed to arsenic at concentrations that represented an immediate threat to their health, and that lead found in surface soil at one of the homes might pose a threat to the health of young children or women of child-bearing age who lived in the home. ATSDR recommended that exposure to arsenic be stopped as soon as possible and that blood lead testing be performed.

15. In 1994 and 1995, Asarco voluntarily implemented a property buy-out program for the homes located in the area formerly occupied by the arsenic processing facilities of the smelter. This area was then fenced and came to be called the Fenced Area (See figure A-1). All but two of the homes were purchased as part of this program. In September 1995 Ecology issued Enforcement Order No. DE95TC-N350 to Asarco. This Order required Asarco to immediately take action to stop the exposure to arsenic of residents, pets, and others who resided in the two remaining houses at 520 and 534 East Marine View Drive. Thereafter, Asarco purchased these properties and following Asarco's purchases, the families vacated each of these houses and moved to residences off-site.

16. Pursuant to Enforcement Order DE92TC-N147 and first amendment, Asarco prepared an Interim Deliverable report in April 1994 and a Remedial Investigation and Feasibility Study (RI/FS) report (*Everett Smelter Remedial Investigation and Feasibility Study, prepared by Hydrometrics, Inc. for ASARCO Inc. and dated September 1995*) for most of the study area.

17. Based on the analytical data collected during the SHA, Pre-RI, the RI/FS, other sampling efforts by Asarco and Ecology and sampling efforts by ATSDR, there is evidence of elevated concentrations of arsenic, cadmium, and lead in the soils. Based on analytical data in the RI/FS report, there is evidence of arsenic and lead in ground water and arsenic and lead in surface water on the site. Based on the analytical data collected by ATSDR, there is evidence of arsenic and lead in house dust on the site.

18. Subsequent to issuance of Enforcement Order Nos. DE92TC-N147 and DE95TC-N350 Asarco expanded its property buy-out program and purchased all but fifteen of the residences in the area south of Broadway, east of Balsam Lane, north of Butler Street, and west of East Marine View Drive. Since Asarco's purchase, all of the homes located within the Fenced Area have been vacated and demolished. Many of the homes adjacent to the Fenced Area have also been vacated, although Asarco is currently leasing some of these properties for residential use.

19. In August 1996, Asarco approached Ecology with a suggested "framework for solution" which provided an outline of potential remedial activities. Asarco's proposed framework outlined a phased approach to cleaning up the site, commencing certain activities as

soon as possible. Ecology concluded that the initial activities included in Asarco's framework were consistent with the cleanup objectives set forth by Ecology and contained in the Model Toxics Control Act. Therefore, Ecology issued Order No. DE97TC-N119 which required all of the initial activities included in Asarco's proposed framework. In addition, the Order required some of the activities which Asarco included in later phases of the proposed framework. Order No. DE97TC-N119 was amended in October 1998 to require Asarco to continue to implement Community Protection Measures (CPMs) until February 2000 and to assist Ecology in implementing State Environmental Policy Act (SEPA) requirements for the site. By letter dated April 19, 1999, Ecology described the current status of Asarco's compliance with the requirements of Order No. DE97TC-N119 and directed Asarco to begin implementing the Overall Soil Sampling Task. Asarco refused to comply with this directive.

20. In October 1997 Ecology and Asarco entered a mediated process which included the City of Everett, Snohomish County, Snohomish Public Utility District, Snohomish Health District, Everett Housing Authority, Northeast Everett Community Organization, and Northwest Everett Neighborhood Association. The purpose of the mediation was to thoroughly explore alternatives for cleaning up the Everett Smelter site. Agreement was not reached in the mediation, but each organization's concerns were fully discussed. Mediation concluded in August 1998 without reaching agreement.

21. Prior to the conclusion of mediation, in July 1998, Asarco filed suit in Thurston County Superior Court against Ecology challenging the cleanup decision which Asarco anticipated Ecology would make on constitutional and non-constitutional grounds. In pretrial proceedings, Thurston County Superior Court ruled the non-constitutional portion of the suit was



not ripe for adjudication. Thurston County Superior Court ruled that the constitutional challenge was ripe for adjudication. Thurston County Superior Court held in December 1999 that it was unconstitutional to impose retroactive liability upon Asarco under the Model Toxics Control Act for cleaning up property it did not historically own, but that it was constitutional to impose retroactive liability upon Asarco for property it did historically own (See Figure A-3). Both Ecology and Asarco appealed this decision to the Washington State Supreme Court. The State Supreme Court issued its opinion on March 21, 2002. The State Supreme Court reversed the superior court's ruling that the constitutional challenge was ripe for adjudication and held that the case was not justiciable. The State Supreme Court vacated the superior court's order and dismissed the case without prejudice.

22. In the context of the above lawsuit, Asarco did not contest liability under the Model Toxics Control Act for those properties it currently owns within the Everett Smelter site (i.e., properties purchased by Asarco through the property buy-out program referenced above).

23. In April 1999 Ecology issued Enforcement Order No. DE99TC-N356, which ordered Asarco to clean up the 80 most contaminated homes within the Everett Smelter site outside of the Fenced Area. These homes were and are still occupied. Asarco refused to comply with this order. Some of these homes are on property which Asarco historically owned. Others are currently owned by Asarco.

24. After mediation concluded, Ecology prepared the *Integrated Final Cleanup Action Plan and Final Environmental Impact Statement for the Upland Area of the Everett*

*Smelter Site* (FCAP/FEIS). After receiving and responding to public comment on the draft, the FCAP/ FEIS was issued on November 19, 1999.

### III.

#### Ecology Determinations

1. Asarco is a former “owner or operator” and a current owner as defined at RCW 70.105D.020(11) of a “facility” as defined in RCW 70.105D.020(4). As described in RCW 70.105D.040(1)(c), Asarco formerly “owned or possessed” a hazardous substance and “arranged for disposal” of that hazardous substance at the facility. Asarco is also a “generator” as described in RCW 70.105D.040(1)(c), of a hazardous waste which was disposed of, or has otherwise come to be located, at the “facility”.
2. The facility is known as the Everett Smelter Site and is located in the area around the intersection of State Route 529 and East Marine View Drive in Everett, Washington. This area is shown on Figure A-1.
3. The substances found at the facility as described above are “hazardous substances” as defined at RCW 70.105D.020(7).
4. The presence of these hazardous substances at the facility constitutes a release as defined at RCW 70.105D.020(19).
5. By letter dated August 29, 1991, Ecology notified Asarco of its status as a “potentially liable person” under RCW 70.105D.040 after notice and opportunity for comment. Asarco is a “potentially liable person” as a current owner, a past owner, and a generator of the hazardous substances that have come to be located at the site. RCW 70.105D.040(1)(a), (b), & (c).

6. Ecology issued the *Integrated Final Cleanup Action Plan and Draft Environmental Impact Statement for the Upland Area of the Everett Smelter Site* (FCAP/FEIS) on November 19, 1999. The Upland Area consists of the Fenced Area and the Peripheral Area, as shown on Figure A-1.

7. Ecology received the *Initial Residential Soil Sampling Report*, dated August 1998, pursuant to Enforcement Order No. DE97TC-N119. Ecology accepts this report as final.

8. Ecology received the *Smelter Area Investigation Report*, dated October 7, 1998, pursuant to Enforcement Order No. DE97TC-N119. Ecology accepts this report as final.

9. Ecology received the draft *Comprehensive Lowland Area Remedial Investigation Report*, dated January 2000 pursuant to Enforcement Order No. DE97TC-N119. Ecology accepts this report as final.

10. Enforcement Order No. DE97TC-N119 is superceded by this Order.

11. Enforcement Order No. DE99TC-N356, is superceded by this Order.

12. Pursuant to RCW 70.105D.030(1)(b) the Department may require potentially liable persons to conduct remedial actions to remedy releases or threatened releases of hazardous substances.

13. Based on the foregoing facts, Ecology believes the remedial actions required by this Order are in the public interest.

#### IV.

##### Work to be Performed

Based on the foregoing Facts and Determinations, it is hereby ordered that Asarco take the following remedial actions and that these actions be conducted in accordance with Chapter 173-340 WAC unless otherwise specifically provided for herein.

1. Notice of Intent to Comply. Asarco shall submit Exhibit B, "Notice of Intent to Comply with Ecology Enforcement Order No. 02TCPNR-3878" (this Order), within seven calendar days of the effective date of this order. Asarco's failure to submit such Notice of Intent to Comply by the required date will be a violation of this Enforcement Order. In such instance, Ecology may proceed with remediation work and/or bring appropriate legal actions, including actions for penalties, in accordance with Ch. 70.105D RCW.

2. Upland Area. Asarco shall begin immediately to implement the *Integrated Final Cleanup Action Plan and Final Environmental Impact Statement for the Upland Area of the Everett Smelter Site* (FCAP/FEIS). The Upland Area of the site is divided into the Peripheral Area and the Former Arsenic Trioxide Processing Area. The Former Arsenic Trioxide Processing Area is also known as the Fenced Area. This is the area which Asarco purchased and fenced off in 1994 and 1995. The portion of the Upland Area surrounding the Fenced Area is the Peripheral Area.

The FCAP/FEIS specifies required documentation in Section 8.3. The first required document is an Engineering Design Report. The Engineering Design Report will be divided into two volumes. Volume I will cover remedial actions within the Fenced Area (also known as the Former Arsenic Trioxide Processing Area) required by the FCAP/FEIS. Volume II will cover

remedial actions within the Peripheral Area required by the FCAP/FEIS. The Engineering Design Report will include a schedule for cleanup and for submittal of other documentation required for the cleanup as specified in FCAP/FEIS Section 8.3.

An outline of the Engineering Design Report is to be submitted to Ecology for review and approval within 30 days of the effective date of this Order. The outline shall include a list of all state and local laws or permits for which procedural requirements are exempted pursuant to RCW 70.105D.090 and for which substantive requirements must be included in the Engineering Design Report. See Section V.12.B of this Order.

A draft Engineering Design Report which incorporates Ecology's comments on the Outline is to be submitted to Ecology within 60 days of receipt of Ecology's comments on the outline.

A final Engineering Design Report which incorporates Ecology's comments on the draft Engineering Design Report is to be submitted to Ecology within 30 days of receipt of Ecology's comments on the draft report.

The Engineering Design Report is to include a schedule for cleanup. Equipment is to be mobilized to begin cleanup within both the Fenced Area and the Peripheral Area no later than April 30, 2003. All material within the Fenced Area with an arsenic concentration exceeding 3,000 parts per million is to be removed from the Everett Smelter site by October 1, 2004. Cleanup for the Fenced Area and the Peripheral Area is to be completed within 7 years of the effective date of this Order.

3. Lowland Area. Asarco shall perform a feasibility study for the Lowland Area of the site. The feasibility study shall be performed in accordance with chapter 173-340 WAC as amended February 12, 2001. Asarco shall coordinate closely with Ecology to ensure the structure of the feasibility study provides for efficient evaluation of alternatives using the evaluation criteria contained in chapter 173-340 WAC. Ecology will use the feasibility study report to select a remedy for the Lowland Area. Ecology may provide specific direction to Asarco on information which must be included in the Lowland Area Feasibility Study Report and how that information is to be structured, presented, and/or evaluated so as to be acceptable to Ecology. Asarco shall follow such direction.

Asarco shall submit a draft outline of the Lowland Area Feasibility Study Report to Ecology for review and approval within 60 days of the effective date of this Order. The outline shall include a list of all state and local laws or permits for which procedural requirements are exempted pursuant to RCW 70.105D.090 and for which substantive requirements must be included in the cleanup action plan for the Lowland Area. See Section V.12.B of this Order. The outline shall include a heading or subheading under which the report will identify actions needed to comply with the State Environmental Policy Act for Lowland Area cleanup.

Asarco shall submit a schedule for preparing the draft chapters of the draft Lowland Area Feasibility Study Report with the draft outline. Individual draft chapters shall be submitted to Ecology in electronic format for review and comment as they are prepared. Portions of draft chapters which cannot be readily submitted in electronic format shall be submitted in hard copy. Ecology will provide review and informal comment on these draft chapters. Asarco is to

coordinate closely with Ecology during preparation of the feasibility study to ensure efficient review and revision.

A complete, assembled draft Lowland Area Feasibility Study Report which incorporates Ecology's comments on the Outline is to be submitted to Ecology within 180 days of receipt of Ecology's comments on the outline. Ecology will provide formal comment on the assembled report.

A final Lowland Area Feasibility Study Report which incorporates Ecology's comments on the draft Feasibility Study Report is to be submitted to Ecology within 90 days of receipt of Ecology's comments on the draft report.

4. Summary of Schedule and Deliverables. The following summarizes deliverables under this Order and the schedule for their submittal. Failure to submit any deliverable by its due date is a violation of this Order. Additional deliverables and due dates may be set in reports required by this Order. Failure to meet due dates established therein shall also be a violation of this Order. In the following, EDR designates the Upland Area Engineering Design Report and FS designates the Lowland Area Feasibility Study Report.

- Notice of Intent to Comply with this Order: 7 days after the effective date of this Order (April 15, 2002).
- EDR outline: 30 days after the effective date of this Order (May 8, 2002).
- Draft EDR: 60 days after receipt of Ecology's comments on the EDR outline.
- Final EDR: 30 days after receipt of Ecology's comments on the Draft EDR.
- Equipment mobilization for cleanup of the Fenced and Peripheral Areas of the Upland Area : April 30, 2003.
- Remove material with arsenic concentrations greater than 3,000 mg/kg from Fenced Area: October 1, 2004.
- Complete Upland Area cleanup: 7 years after the effective date of this Order (April 8, 2009).

- FS Report Outline: 60 days after the effective date of this Order (June 7, 2002).
- Assembled Draft FS Report: 180 days after receipt of Ecology's comments on the FS Report Outline.
- Final FS Report: 90 days after receipt of Ecology's comments on the Draft FS Report.

5. Data and Document Submittal Requirements. Data and documents submittals shall follow the requirements of WAC 173-340-840. All data and documents, with the exception of monthly progress reports and individual draft feasibility study chapters, shall be submitted as hard copy and electronically on disk or other appropriate means. Monthly progress reports and individual draft feasibility study chapters for informal review shall be submitted electronically only. Portions of monthly reports and individual draft feasibility study chapters which cannot be readily submitted electronically shall be submitted in hard copy. All electronic submittals shall be in a format acceptable to Ecology.

Data shall be entered in a relational database accessible by computer and part of or easily made part of a database containing all past data and suitable for use during the life of and after the project. Data submittals shall be done in a manner that facilitates tracking of cleanup activities by Ecology and the Snohomish Health Department, and provision of information on those cleanup activities in response to public inquiries in person, over the telephone, or by e-mail. The database program shall be Microsoft® Access or a compatible database program capable of exporting files to Microsoft® Access. Asarco has previously submitted data in database Evernew4. This database is acceptable as a starting point.

All text of review documents shall be submitted as Microsoft® Word or compatible format. Spreadsheet documents, if any, shall be compatible with Microsoft® Excel.



Figures and drawings which are 8½ x 11 inches in size or smaller should be incorporated in Word documents if practicable. Otherwise, such drawings should be submitted in Adobe Acrobat format. Drawings which do not fit on an 8½ x 11 page or are not submitted in electronic format must be submitted in hard copy.

Final documents are to be submitted in both hard copy and electronic copy. Electronic copies of final documents are to be in Adobe® Acrobat format, and are to be protected against changes. Ecology's intent is to return review comments using Microsoft® Word's reviewing tool and to have all final documents available, insofar as possible, in electronic format which may be e-mailed or written to a CD-ROM upon request. Any documents which are available only in hard copy shall be clearly listed in the electronic copy.

Asarco is to maintain revision control on all documents, both electronic and hard copy, so that it is clear which document is the latest draft or is the final document.

Data submittals should be done in a manner which promotes efficient use by Ecology, Asarco, and the public. Ecology expects Asarco to work with Ecology and the public to ensure that documents are submitted in a manner that maximizes access to them and promotes efficiency in reviewing them.

6. Monthly Progress Reports. Asarco shall submit monthly progress reports which describe the actions taken during the previous month to implement the requirements of this Order. Between progress reports Asarco shall apprise Ecology in a timely manner of any issues which need to be addressed during the progress of the work. The monthly progress reports shall include the following: (a) a list of activities that have taken place during the month, related

to project tasks; (b) a detailed description of any deviations from required tasks not otherwise documented in project plans or amendment requests; (c) description of all deviations from the schedule specified in project documents governing the activities during the reporting month and any planned deviations in the upcoming month; (d) for any deviations in schedule, a plan for recovering lost time and maintaining compliance with the schedule; (e) all validated data received by Asarco during the past month, in computerized database format, and an identification of the source of the samples; (f) a list of deliverables for the upcoming month if different from the schedule, and (g) other information as identified by Ecology. Monthly progress reports shall be submitted by the tenth day of the following month, beginning after the first full calendar month after the effective date of this Order. Monthly progress reports shall be submitted to Ecology's Project Coordinator via e-mail. Copies shall be sent via e-mail to others as requested by Ecology. The subject line shall read: Everett Smelter – Progress Report for *Month Year*. The progress report shall be included as an attached Word document. Any figure, table, or other document referred to but not incorporated in the progress report shall be provided in hard copy. No follow-up copies are to be submitted unless requested by Ecology. Ecology shall ensure that a copy is printed and routed to Ecology's project file. If any problems are encountered with tables or graphics, Ecology will request a hard-copy. The above submittal requirements for monthly reports are intended to promote efficient exchange of information. Submittal requirements for monthly reports may be modified by mutual agreement between Ecology and Asarco.

V.

Terms and Conditions of Order

1. Definitions. Unless otherwise specified, the definitions set forth in ch. 70.105D RCW and ch. 173-340 WAC shall control the meanings of the terms used in this Order.
2. Public Notice. RCW 70.105D.030(2)(a) requires that, at a minimum, this Order be subject to concurrent public notice. Ecology shall be responsible for providing such public notice and reserves the right to modify or withdraw any provisions of this Order should public comment disclose facts or considerations which indicate to Ecology that the Order is inadequate or improper in any respect.
3. Remedial Action Costs. Asarco shall pay to Ecology costs incurred by Ecology pursuant to this Order. These costs shall include work performed by Ecology or its contractors for investigations, remedial actions, and Order preparation, oversight and administration. Ecology costs shall include costs of direct activities and support costs of direct activities as defined in WAC 173-340-550(2). Asarco shall pay the required amount within 90 days of receiving from Ecology an itemized statement of costs that includes a summary of costs incurred, an identification of involved staff, and the amount of time spent by involved staff members on the project. A general description of work performed will be provided upon request. Itemized statements shall be prepared quarterly. Failure to pay Ecology's costs within 90 days of receipt of the itemized statement of costs will result in interest charges.

By issuing a new order, Ecology does not intend to affect Asarco's obligation to pay costs incurred by Ecology pursuant to any other orders or statutory requirements. Asarco's obligation for such costs, including accruing interest, is continuing.

4. Designated Project Coordinators. The project coordinator for Ecology is:

Name: David L. South  
Address: Washington State Department of Ecology  
3190 160th Avenue SE  
Bellevue, WA 98008-5452  
  
Phone: (425) 649-7200  
FAX: (425) 649-7098  
e-mail: dsou461@ecy.wa.gov

The project coordinator for Asarco is:

Name: Tom Martin  
Address: ASARCO Inc.  
P.O. Box 1677  
Tacoma, Washington 98401  
  
Phone: (253) 756-0203  
FAX: (253) 756-0250  
e-mail: tmartin@asarco.com

The project coordinator(s) shall be responsible for overseeing the implementation of this Order. To the maximum extent possible, communications between Ecology and Asarco, and all documents, including reports, approvals, and other correspondence concerning the activities performed pursuant to the terms and conditions of this Order, shall be directed through the project coordinator(s). Should Ecology or Asarco change project coordinator(s), written notification shall be provided to Ecology or Asarco at least ten (10) calendar days prior to the change.

5. Performance. All work performed pursuant to this Order shall be under the direction and supervision of a professional engineer or a professional geologist licensed in the state of Washington with appropriate training, experience and expertise in hazardous waste site investigation and cleanup. Asarco shall notify Ecology as to the identity of such engineer(s) and geologist(s), and of any contractors and subcontractors to be used in carrying out the terms of this Order, in advance of their involvement at the Site. Asarco shall provide a copy of this Order to all agents, contractors and subcontractors retained to perform work required by this Order and shall ensure that all work undertaken by such agents, contractors and subcontractors will be in compliance with this Order. Except when necessary to abate an emergency situation, Asarco shall not perform any remedial actions at the Everett Smelter site beyond those required by this Order or other Orders in effect pertaining to the Everett Smelter site unless Ecology concurs, in writing, with such additional remedial actions. WAC 173-340-400(7)(b)(i) requires that "construction" performed on the Site must be under the supervision of a professional engineer registered in Washington.

6. Access. To the extent that the tasks required by this Order require access to land not owned by Asarco, Asarco shall use its best efforts to obtain access agreements for itself, its contractors and agents, and Ecology and their contractors or agents, from the present owners or lessees as the need for such access may arise. Best efforts shall include, at a minimum, a certified letter from Asarco to the present owners of such property requesting access agreements to permit Asarco, Ecology and their authorized representatives to access such property. In the

event Asarco is unable to obtain access under reasonable terms and conditions, Ecology may, consistent with its authority, assist Asarco in obtaining access.

Ecology or any Ecology authorized representative shall have the authority to enter and freely move about all property at the Site at all reasonable times for the purposes of, inter alia: inspecting records, operation logs, and contracts related to the work being performed pursuant to this Order; reviewing the progress in carrying out the terms of this Order; conducting such tests or collecting samples as Ecology or the project coordinator may deem necessary; using a camera, sound recording, or other documentary type equipment to record work done pursuant to this Order; and verifying the data submitted to Ecology by Asarco. When entering the Site under ch. 70.105D RCW, Ecology shall provide reasonable notice prior to entering the Site unless an emergency prevents notice. Ecology shall allow split or replicate samples to be taken by Asarco during an inspection unless doing so would interfere with Ecology's sampling. Asarco shall allow split or replicate samples to be taken by Ecology and shall provide Ecology seven (7) days notice before any sampling activity.

7. Public Participation. Ecology shall retain the responsibility for public participation for this Order. Asarco shall provide timely assistance to Ecology upon request.

Asarco shall be responsible for erecting and maintaining signs which explain the nature of the cleanup work being conducted. Asarco's project coordinator, with contact telephone number and e-mail address, and Ecology's project coordinator, with contact telephone number and e-mail address will be displayed on the sign. Asarco shall also list a 24-hour emergency contact number. Signs will be erected at least 30 days prior to mobilizing equipment to the work site in locations where the signs may be expected to be seen by the largest number of people who may

be affected by the work. A minimum of two signs will be erected for each area of the site being worked.

In addition, Asarco shall identify an on-site construction contact, with telephone number, whom the public may contact with questions and comments about current operations. This person shall have a telephone with voice mail, be readily available during normal working hours, and shall return voice mail messages promptly. All calls are to be logged, the nature of the call indicated, and Asarco's response. The logs shall be submitted to Ecology with Asarco's monthly report.

A weather-proof, transparent box, such as those used on real estate signs, shall be attached to each sign. Asarco shall place flyers giving updates on the work in the box on a periodic basis, not to exceed monthly. Asarco shall provide Ecology at least three working days to review and comment on each flyer.

Signs describing work in the Fenced Area shall be erected by March 30, 2003. The Fenced Area signs will summarize monitoring being done to protect the health and safety of adjacent residents. The flyers describing work within the Fenced Area shall summarize the results of monitoring performed to ensure the health and safety of nearby residents and list the times, duration, and magnitude (both absolute and in comparison to the exceeded standard) of all exceedances of allowable standards which have occurred over the life of the project, the actions taken to stop each exceedance, and the actions taken to prevent such an exceedance from occurring again. Asarco shall participate in an Ecology-sponsored public meeting of adjacent residents to describe how material with arsenic concentrations exceeding 3,000 parts per million

will be cleaned up and what measures will be taken to ensure the health and safety of nearby residents during that cleanup.

8. Retention of Records. Asarco shall preserve in a readily retrievable fashion, during the pendency of this Order and for ten (10) years from the date of completion of the work performed pursuant to this Order, all records, reports, documents, and underlying data in its possession relevant to this Order. Should any portion of the work performed hereunder be undertaken through contractors or agents of Asarco, a record retention requirement meeting the terms of this paragraph shall be required of such contractors and/or agents.

9. Dispute Resolution. Asarco may request Ecology to resolve factual or technical disputes which may arise during the implementation of this Order. Such request shall be in writing and directed to Mr. James Pendowski, Program Manager of the Toxics Cleanup Program, or his successor. Ecology resolution of the dispute shall be binding and final. Asarco is not relieved of any requirement of this Order during the pendency of the dispute and remains responsible for timely compliance with the terms of the Order unless otherwise provided by Ecology in writing.

10. Reservation of Rights. Ecology reserves all rights to issue additional orders or take any action authorized by law in the event or upon the discovery of a release or threatened release of hazardous substances not addressed by this Order, upon discovery of any factors not known at the time of issuance of this Order, in order to abate an emergency, or under any other circumstances deemed appropriate by Ecology.



Ecology also reserves all rights regarding the injury to, destruction of, or loss of natural resources resulting from the release or threatened release of hazardous substances from the Everett Smelter site.

In the event Ecology determines that conditions at the Site are creating or have the potential to create a danger to the health or welfare of the people on the Site or in the surrounding area or to the environment, Ecology may order Asarco to stop further implementation of this Order for such period of time as needed to abate the danger.

11. Transference of Property. No voluntary or involuntary conveyance or relinquishment of title, easement, leasehold, or other interest in any portion of the Site shall be consummated by Asarco without provision for continued implementation of all requirements of this Order and implementation of any remedial actions found to be necessary as a result of this Order.

Prior to transfer of any legal or equitable interest Asarco may have in the Site or any portions thereof, Asarco shall serve a copy of this Order upon any prospective purchaser, lessee, transferee, assignee, or other successor in such interest. At least thirty (30) days prior to finalization of any transfer, Asarco shall notify Ecology of the contemplated transfer.

12. Compliance With Other Applicable Laws.

A. All actions carried out by Asarco pursuant to this Order shall be done in accordance with all applicable federal, state, and local requirements, including requirements to obtain necessary permits, except as provided in paragraph B. of this section.

B. Pursuant to RCW 70.105D.090(1), Asarco shall determine the substantive requirements of chapters 70.94, 70.95, 70.105, 75.20, 90.48, and 90.58 RCW and of any laws requiring or authorizing local government permits or approvals for the actions to be taken under this Order. Asarco shall promptly consult with the appropriate state and/or local agencies. Written documentation from those agencies of the substantive requirements applicable to the actions shall be included in the Engineering Design Report. These requirements shall be enforceable requirements of this Order. If additional substantive requirements are identified after issuance of the Engineering Design Report, they will be included in an addendum to the Engineering Design Report and become enforceable parts of this Order.

C. Pursuant to RCW 70.105D.090(2), in the event Ecology determines that the exemption from complying with the procedural requirements of the laws referenced in RCW 70.105D.090(1) would result in the loss of approval from a federal agency which is necessary for the State to administer any federal law, the exemption shall not apply and Asarco shall comply with both the procedural and substantive requirements of the laws referenced in RCW 70.105D.090(1), including any requirements to obtain permits.

## VI.

### Satisfaction of this Order

The provisions of this Order shall be deemed satisfied upon Asarco's receipt of written notification from Ecology that Asarco has completed the remedial activity required by this Order, as amended by any modifications, and that all other provisions of this Order have been complied with.

VII.

Severability

If any portion of this Order or its operation is held invalid, the remainder of the Order and its operation shall remain effective.

VIII.

Enforcement

1. Pursuant to RCW 70.105D.050, this Order may be enforced as follows:

A. The Attorney General may bring an action to enforce this Order in a state or federal court.

B. The Attorney General may seek, by filing an action, if necessary, to recover amounts spent by Ecology for investigative and remedial actions and orders related to the Site.

C. In the event Asarco refuses, without sufficient cause, to comply with any of the terms of this Order, Asarco may be liable for:

(1) up to three times the amount of any costs incurred by the state of Washington as a result of its refusal to comply; and

(2) civil penalties of up to \$25,000 per day for each day it refuses to comply.

D. This Order is not appealable to the Washington Pollution Control Hearings Board.

This Order may be reviewed only as provided under RCW 70.105D.060.

Effective date of this Order: April 8, 2002

Steven M. Alexander  
Steven M. Alexander, Toxics Cleanup Program

# Exhibit A Figures

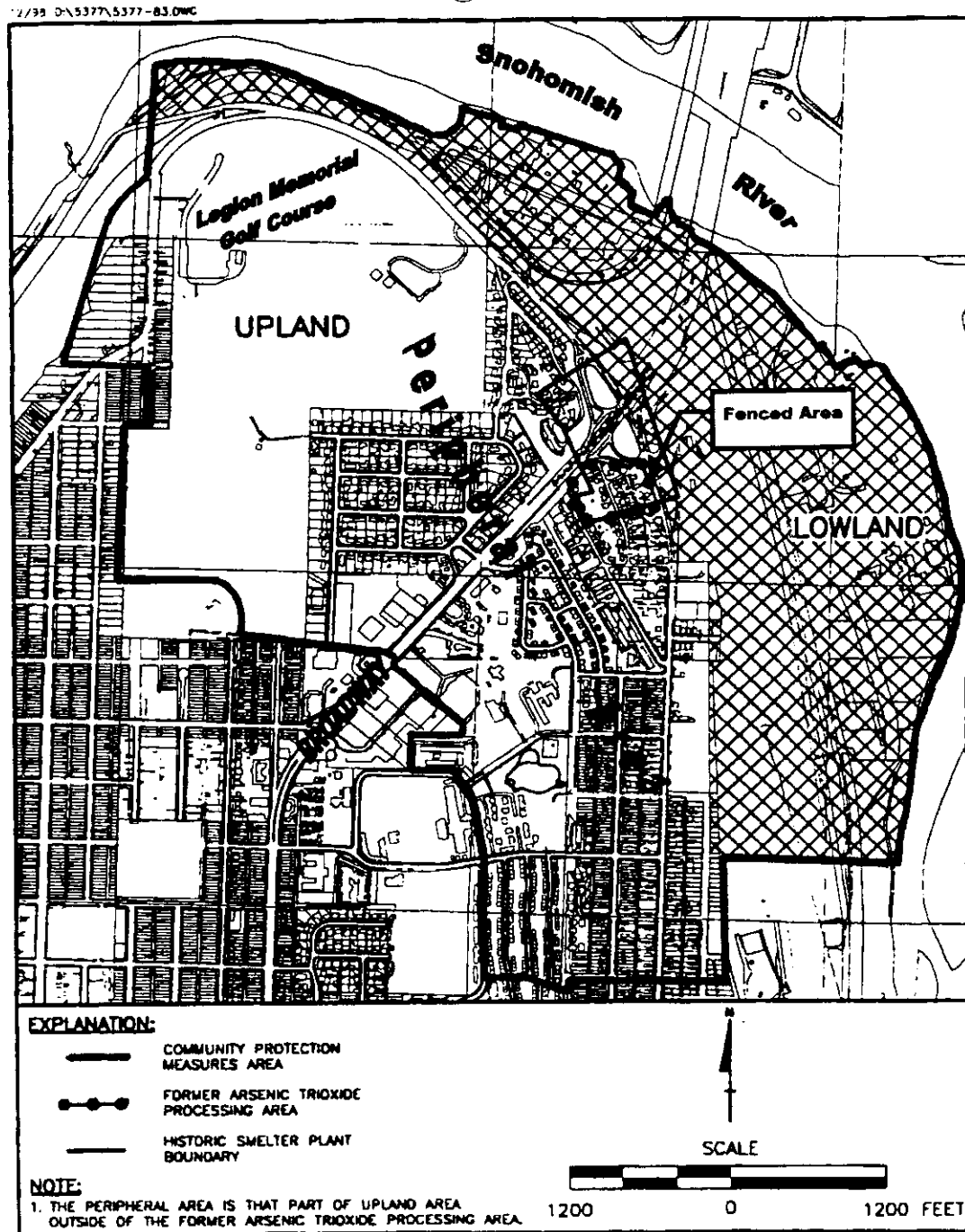
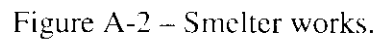


Figure A-1 – The Everett Smelter Site. The Peripheral Area is that part of the Upland Area surrounding the Fenced Area.



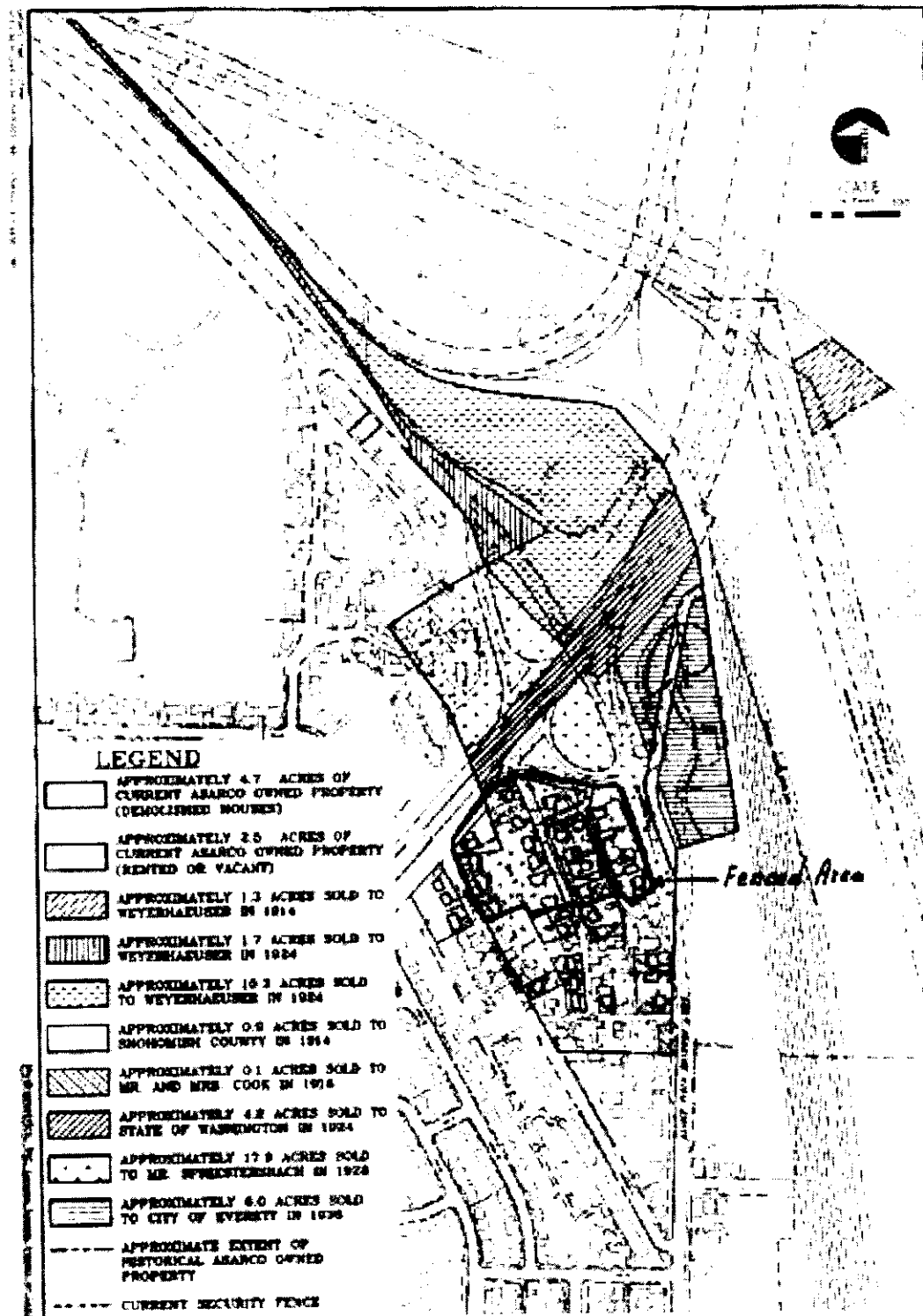


Figure A-3 – Historical Asarco ownership.



**Exhibit B**  
**Notice of Intent to Comply**  
**with**  
**Ecology Enforcement Order No. 02TCPNR-3878**

Asarco hereby commits to implement Ecology Enforcement Order No. 02TCPNR-3878.

For ASARCO Incorporated:

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Print or type name





## **Exhibit C**

***Integrated Final Cleanup Action Plan  
and  
Final Environmental Impact Statement  
for the  
Upland Area  
of the  
Everett Smelter Site***

**(Attached)**